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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,536	08/26/2003	Minsu Jeong	GK-US035116	2270
22919	7590	09/30/2004	EXAMINER	
SHINJYU GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680			CUNNINGHAM, TERRY D	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/647,536

Applicant(s)

JEONG, MINSU

Examiner

Terry D. Cunningham

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/26/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

- A: Claims 1-8, corresponding to Figs. 3-6.
- B: Claims 9-17, corresponding to Figs. 7-9

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Todd Guise on 24 September 2004 a provisional election was made without traverse to prosecute the invention of group B, claims 9-17.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are further objected to a improper showing the invention. It is clear from the specification that node 807 of Fig. 8 should be connected to the common connection between MP82 and MN81 and that node 907 of Fig. 9 should be connected to the common connection between MP92 and MN91.

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, line 3, there is no support found in the specification for plural “output terminals”. Figures 8 and 9 expressly show the “charge pumping unit” as having only one “output. In line 12, it appears that “out terminal” and “cotrolling” should be changed to --output terminal-- and --controlling--, respectively. In line 16, it is not understood how one “output terminal” can be connected to plural “bias terminals” nor is there support found for this in the specification. It appears that “an output terminal” should be changed to --output terminals--. In line 3, for clarity, the first comma should be deleted.

Claims 10-17 are rejected as including the indefiniteness discussed above with claim 9.

In claim 10, lines 2-3, the phrase “a first and second PMOS transistors and a first and second NMOS transistors” is grammatically incorrect. It is suggested that both occurrences of “a” be deleted. In line 9, there is no clear antecedent for “said bias terminal”. It appears that this should be changed to --one of said bias terminals--. In line 10, there is no support found in the specification for the “gate of said second PMOS transistor” being “connected to a drain of said second NMOS transistor” or for such forming “said output terminal of said charge pumping unit”. As seen in Figs. 8 and 9, the “gate of said second PMOS transistor” is instead shown as being connected to the “biasing unit”.

In claim 12, line 3, it is not understood how the phrase “and output terminal,” relates to the rest of the sentence. Also, it is not understood what “output terminal” this is referring to nor does it appear that such has proper antecedent. It appears that this should be changed to --an output terminal--. In line 5, it appears that “and PMOS transistor” should be changed to --and a PMOS transistor--.

In claim 13, lines 8-13, the language therein is unclear. This portion states that the “gate of the second PMOS transistor” is connected tot the “output terminal of said biasing unit” and to

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the “drain of second PMOS transistor”. This portion further states that the “drain of the second PMOS transistor” is connected to the “control terminal”. There is no support found in the specification for the “output terminal” and the “control terminal” being coupled together.

Claim 14 is deemed indefinite for similar reasons as claim 100.

Claim 16 is deemed indefinite for similar reasons as claim 12.

Claim 17 is deemed indefinite for similar reasons as claim 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Choi (6,229,362).

Choi discloses, in Fig. 10, a circuit comprising: “a charge pumping unit (MP7, MP9, MN7, N5 and 40) having a first and second input terminals (UP and DN), bias terminals (gates of MP7 and MN5)” and an “output terminal (54), and charging and discharging to a capacitor (48) connected to said output terminals”; “a current mirror unit (MP8, MP10, MN8 and MN5) having a bias terminal (any one of the gates of MP8, MP10, MN8 and MN5) and an output terminal (56)”; and “a [control] unit (42) having a first input terminal (non-inverting input of 42)”, “a second input terminal (inverting input of 42)” and “an [output] terminal (output of 42)”, all connected and operating similarly as recited by Applicant..

Claims 10-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 571-272-1742.

The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC
September 28, 2004


Terry D. Cunningham
Primary Examiner
Art Unit 2816